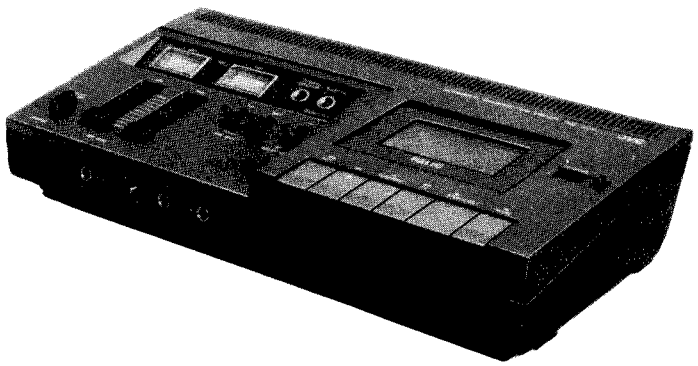
JVC

SERVICE MANUAL

MODEL
CD-1740/A/B/E/U
STEREO CASSETTE DECK



No. 4133
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Specification

Dimensions	:	405mm(W) x 97mm(H) x 217mm(D) 15-15/16" 3-13/16" 8-9/16"
Weight	:	4.2 kg (9.2 lbs.)
Type	:	Stereo Cassette Deck
Track system	:	4-track 2-channel
Usable cassettes	:	C-30, C-60, C-90
Frequency response	:	Chrome tape 30~15,000Hz (40~14,000Hz±3dB) Normal tape 30~13,000Hz (40~12,000Hz±3dB)
S/N ratio	:	50dB at 1kHz from peak level without Dolby NR 5dB at 1kHz 10dB at 5kHz or more improved with Dolby NR
Wow & flutter	:	0.13% (WRMS)
Crosstalk	:	60dB at 1kHz
Channel separation	:	30dB at 1kHz
Harmonic distortion	:	2% at 1kHz (reference output level) using normal tape
Recording system	:	AC bias 95kHz
Erasure system	:	AC erasure 95kHz
Heads	:	R/P . . . Cronios Head Erase . . Ferrite Head (double gap)
Motor	:	DC Electric governor motor
Tape speed	:	4.75cm/sec. (1-7/8inch/sec.)
Recording time	:	60 min. for double pass (C-60)
Fast forward time	:	130 sec. or less (C-60)
Rewinding time	:	130 sec. or less (C-60)
Semiconductors	:	2 ICs 24 transistors 26 diodes 2 FETs
Input	:	MIC x 2 Max. sensitivity 0.45mV Matching impedance 10kΩ LINE x 2 Min. input level 100mV Input impedance 220kΩ
Output	:	LINE x 2 0.42V Output impedance 1kΩ PHONES x 1 0.3mW Matching impedance 8Ω
DIN connector	:	Max. sensitivity 20mV Input impedance 84kΩ Output 0.42V Output impedance 1kΩ
Power source	:	AC 120V, 60Hz (CD-1740) AC 240V, 50Hz (CD-1740A/B) AC 220V, 50Hz (CD-1740E) AC 100V,110~120V,200V, 220~230V, 50/60Hz (CD-1740U)
Power consumption	:	15W

Design and specifications are subject to change without notice.

Features

* Dolby Noise Reduction System
* Tape Run Indication
* Chrome/Normal Tape Select Switches
* Slide Level Controls
* Full Auto Stop
* Electric Governor Motor
* Precision Machined Capstan
* New Time Constant

The Name of Parts

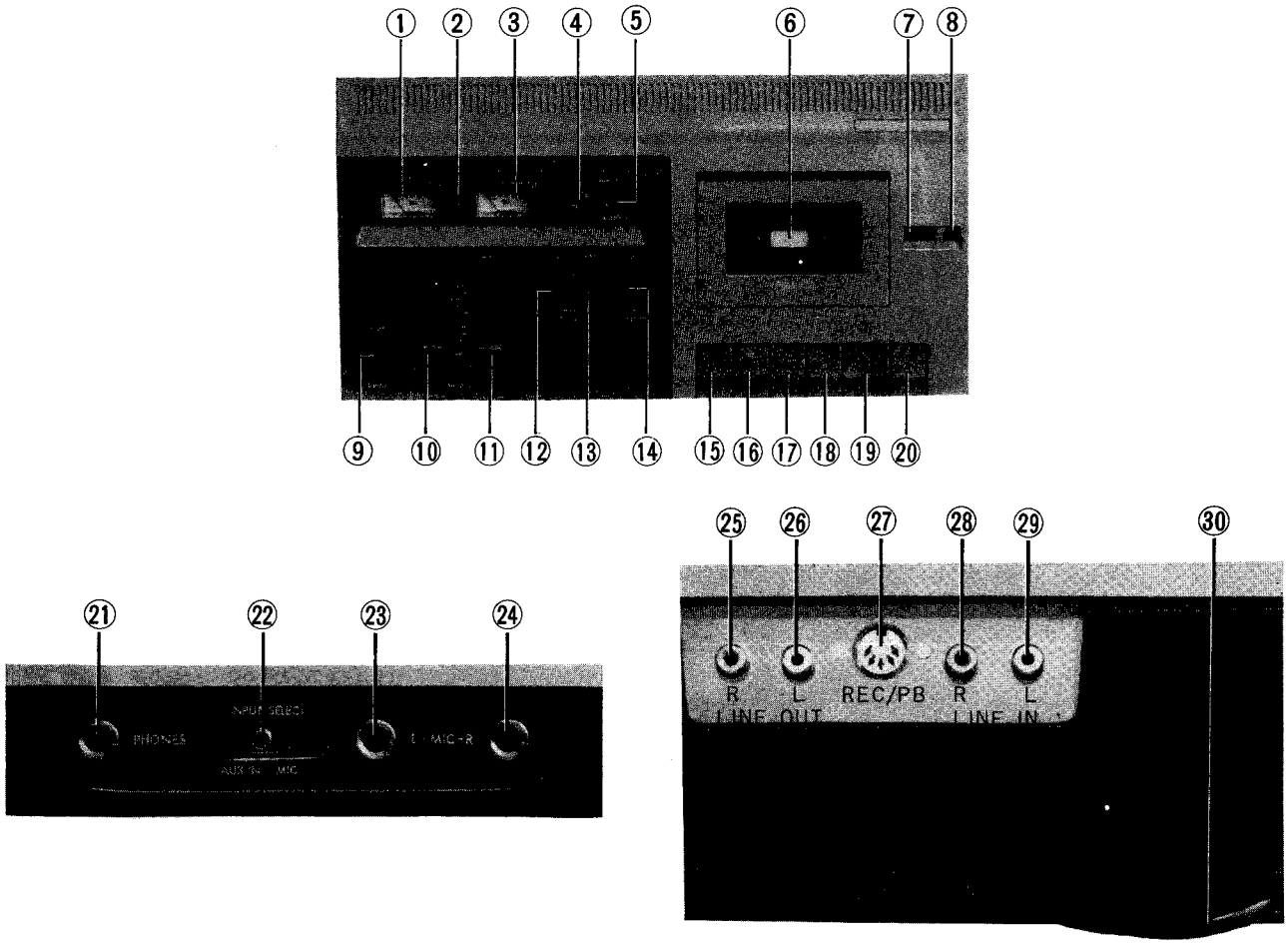


Fig. 1

1 VU meter (LEFT)
2 Recording indicator (REC)
3 VU meter (RIGHT)
4 Tape run indicator (TAPE RUN INDICATOR)
5 Dolby noise reduction indicator (DOLBY NR)
6 Cassette holder
7 Tape counter (COUNTER)
8 Counter reset button
9 Power switch (POWER)
10 Left REC level control (LEFT – REC LEVEL)
11 Right REC level control (RIGHT – REC LEVEL)
12 Equalization select switch (EQ)
13 Bias select switch (BIAS)
14 Dolby noise reduction switch (DOLBY NR)
15 Rewind button (REW)
16 Record button (REC)
17 Play/Record button (PLAY/REC)
18 Fast forward button (FF)
19 Stop/Eject button (STOP/EJECT)
20 Pause button (PAUSE)
21 Headphones jack (PHONES)
22 Input select switch (INPUT SELECT)
23 Left microphone jack (L – MIC)
24 Right microphone jack (R – MIC)
25 Right line out jack (R – LINE OUT)
26 Left line out jack (L – LINE OUT)
27 DIN socket for recording and playback (REC/PB)
28 Right line in jack (R – LINE IN)
29 Left line in jack (L – LINE IN)
30 Power cord

Main Parts Removing & Replacement

Enclosure Assembly

Parts Name	Removing Step	Dwg. No.	Remarks
Bottom cover ass'y (CD-1740B,E) Wood bottom ass'y (CD-1740A,U)	Remove 6 screws fastening the bottom cover ass'y. Remove 2 mounting (decoration) washers and 6 screws.	[2] 1	Black screws 3φ8mm–6p.c.s Black screws 3φ16mm–5p.c.s 3φ20mm–1p.c.
Top panel ass'y	1. Pull up side of the REC level knobs. 2. Remove screws and insulators fastening the MECH & AMP ass'y to the top panel. 3. Remove screws indicator panel, power trans and power switch.	[3] 2	left & right screws 10p.c.s insulators (amp ass'y 2p.c.s MECH ass'y 2p.c.s screws (power SW 2p.c.s power trans 2p.c.s indicator panel 2p.c.s
Push button	1. Remove 2 screws fastening the shaft holders of push button shaft. 2. Pull out the nylon washers and springs from the shaft, then the push button can be removed.	[4] 3	STOP/EJECT,FF,REW, PAUSE,PLAY,REC
Cassette holder ass'y	Pull the cassette holder shaft.		(L,R side)

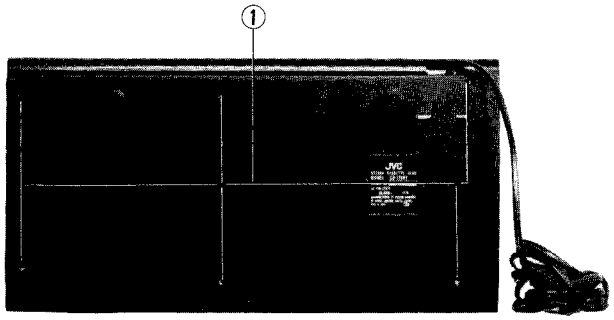


Fig. 2

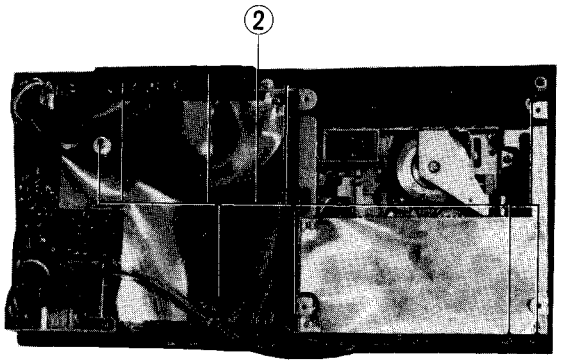


Fig. 3

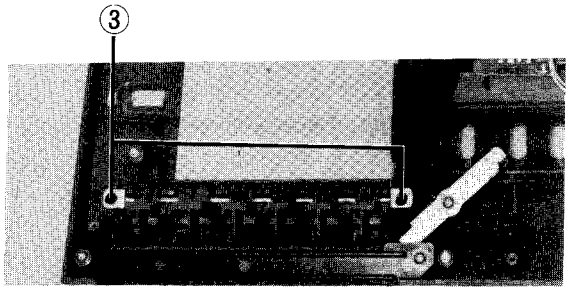


Fig. 4

Electrical Parts

Parts Name	Removing Step	Dwg. No.	Remarks
Power trans	1. Remove 2 screws fastening the trans bracket, and remove the wire clamp as same, then the power trans can be unconnected from top panel ass'y. 2. Remove 2 screws fastening the power trans.	[5] 4	
Power switch	1. Remove 2 screws fastening the switch bracket, then the power switch can be unconnected from top panel ass'y. 2. Remove 2 screws fastening the power switch.	[5] 5	
Plug ass'y (CD-1740E,U)	Remove 2 screws fastening the plug ass'y.	[5] 6	
Level meters	Remove 2 screws the indicator bracket, then the level meters can be removed.	[6] 7	
Main amp ass'y	1. Remove 3 screws fastening the bracket. 2. Remove 4 screws fastening the P.C. Board and the MIC jack ass'y. 3. Pull out the wire connecting plate.	[5],[7] 8	
Dolby P.C.B.	Remove 4 screws fastening the Dolby P.C.B.	[8] 10	
Power supply P.C.B.	1. Remove 2 screws fastening the power supply P.C.B. 2. Remove 1 screw and washer fastening the transistor. 3. Pull out the wire connector.	[7] 9	Don't power on and remove the transistor fastening screw when adjust or repair it.

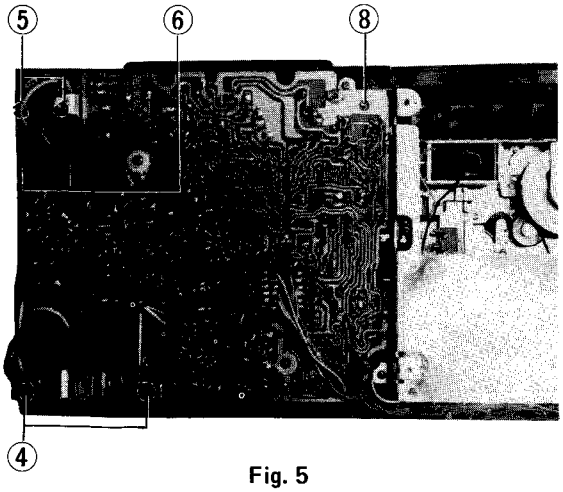


Fig. 5

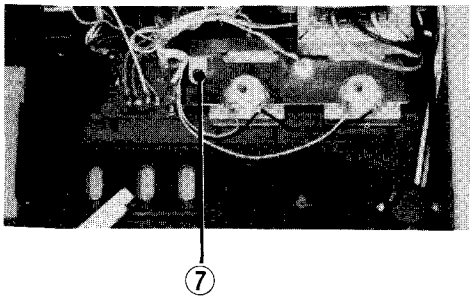


Fig. 6

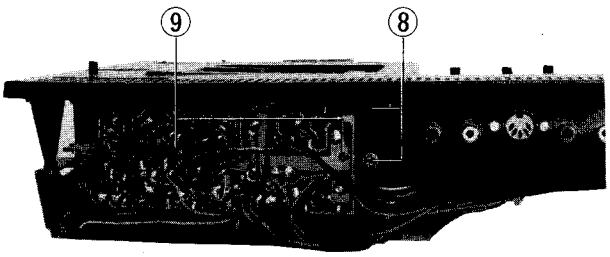


Fig. 7

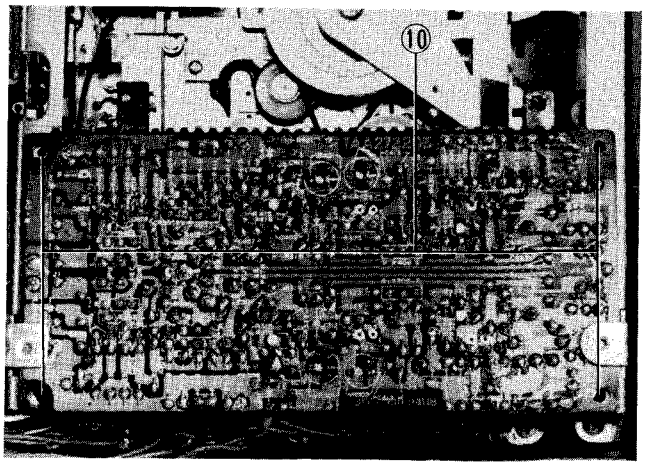


Fig. 8

Mechanical Parts

Parts Name	Removing Step	Dwg. No.	Remarks
Motor ass'y	1. Desolder the motor wires. 2. Remove the capstan belt. 3. Remove 3 screws of the motor.	[9] 11	
Flywheel	1. Remove the capstan belt. 2. Remove 1 screw fastening the flywheel holder. 3. Pull out the flywheel.	[9] 12	When replace the flywheel, forget to insert the nylon washer to the shaft of flywheel.
Pinch roller arm ass'y	1. Remove "E" ring holding the pinch roller arm ass'y. 2. Pull out it from the shaft.	[10] 13	
Take up reel ass'y	1. Remove 2 screws fastening the cassette holder plate. 2. Remove the countor belt. 3. Remove "E" ring holding the take up reel ass'y. 4. Pull out it from the shaft.		
Supply reel ass'y	1. Remove 2 screws fastening the cassette holder plate. 2. Remove "E" ring holding plate. 3. Pull out it from the shaft.		
Counter	1. Remove the counter belt. 2. Remove 2 screws fastening the counter.		

Note; 1. Don't dirty, slippery and undue run-out the capstan belt and the counter belt.
2. Adjust height of the motor pulley, when the capstan belt connect to the flywheel from the motor pulley, so that it will be parallel the chassis.

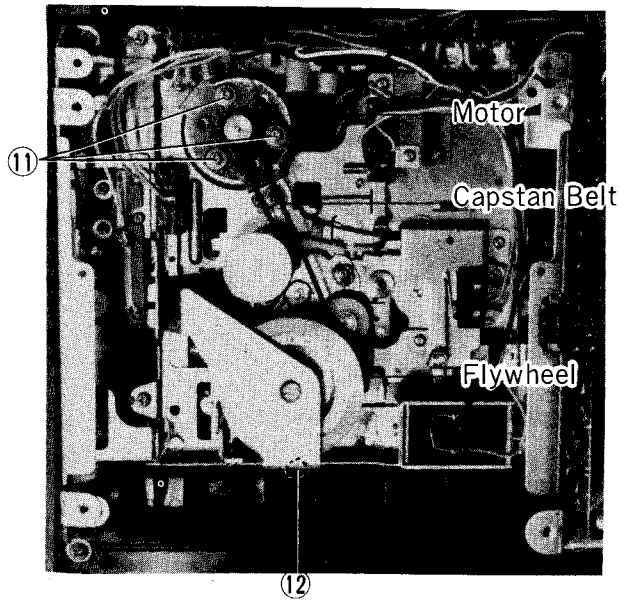


Fig. 9

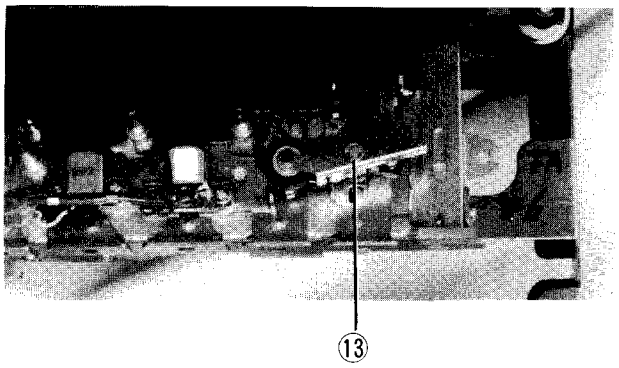


Fig. 10

Replacement and Adjustment of the Head

If either of the record/playback head and the erase head shows low performance because of wear, broken wire or excessive magnetization, it should be replaced.

1. Replacing the head

Remove the top cover, and the heads will be exposed to view as show Fig. 11.

The record/playback head can be removed by loosening the screws ① and ②, while the erase head by loosening the screws ③ and ④.

After replacement, adjust the head for azimuth.

If necessary, adjust playback sensitivity.

2. Azimuth adjustment

Insert the cord plug into the LINE OUT jack (or REC/PB), and connect the other end of the cord to a V.T.V.M. (vacuum tube voltmeter).

Then play the azimuth adjustment standard tape (e.g. JVC's VTT-615 10kHz), and turn the adjustment screw ② so that the output will become maximum.

If the azimuth adjustment standard tape is not available, play a music cassette. When treble response becomes optimum, set the adjustment screw.

After this adjustment, the screw ② should be locked with a bond.

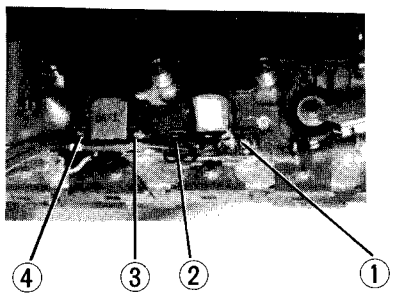


Fig. 11

Adjustments

Principal adjustment of electical circuit

(See main circuit board = page 10)

This deck has many check points in the circuits so that checking and correct adjustment is easy.

Adjust the circuits according to the procedures given below.

Adjustments;

1. **Deflection of level meters**
2. **Playback sensitivity**
3. **Bias currents**
4. **Recording signal currents**
5. **Dolby NR circuit**

Equipment and measuring instruments used for adjustment.

1) V.T.V.M. (measuring AC in milivolts)
2) CR oscillator
3) Attenuator
4) Test tape (VTT664)
5) Blank tapes [Fuji FM-C90 (normal) and Fuki FC-60 (chrome) or equivalent]
6) 100Ω resistor (for REC bias current)
   600Ω resistor (for attenuator matching)

1. Level meter deflection

They were correctly adjusted before being shipped from the factory, but readjustment will be necessary if the related parts are replaced.

1) Set the deck in the record mode.
2) Input 1kHz signals from MIC or LINE IN jacks (with a level of -50dBs approx. for MIC input or -10dBs approx. for LINE IN input).
   Adjust the recording volume controls so that the voltages across Line out or recording monitor Terminal or Dolby NR circuit are -5.5dBs.
3) Adjust two semi-fixed variable resistors VR103 (L-ch) and VR203 (R-ch) so that the level meters indicate 0VU.

2. Playback sensitivity

Playback sensitivity of the head may not be correct after the head is replaced: follow the procedure below to adjust it.

Before adjusting the playback sensitivity, the level meter deflection must be adjusted.

* Using VTT664

A 1kHz 16mM/mm standard signal is recorded on this tape. Adjust VR101 (L-ch) and VR201 (R-ch) so that the level of Line out terminal -5.5dBs while play back the tape.

The equalizer switch must be set to NORMAL when tape VTT664 is used & the noise reduction switch must be set to OFF position.

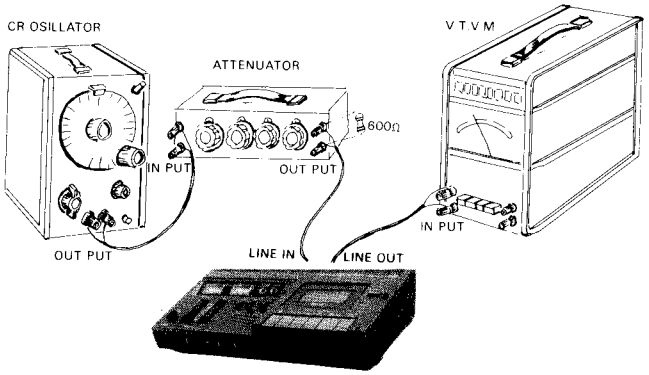


Fig. 12

3. Recording bias current

Readjust following the produre below if the head is replaced or the adjustment seems incorrect.

First adjust for chrome tape, then for normal tape.

Insert a 100Ω resistor into the ground side wiring of the head as shown in Fig. 13.

Remember that the ground side during recording becomes live during play back. Be sure to insert the resistor to the recording ground side of the wiring after disconnecting the wiring from the circuit board.

Connect the AC VTVM across the resistor.

Adjust the bias control semi-fixed variable resistors VR501, VR502 so that the currect becomes correct for both the L and R channels setting of the CHROME bias position.

Adjust the bias control semi-fixed variable resistor VR503 setting of NORMAL bias position.

The standard currents are

NORMAL 400μA (40mV/100Ω)

CHROME 600μA (60mV/100Ω)

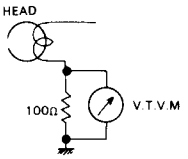


Fig. 13

4. Recording signal current

If the recording signal currents are not adjusted correctly, the recorded signal does not indicate the reference level on VU meter.

More over the Dolby recording/playback characteristics may be so degraded that reproduction of the original sound is impossible.

The most suitable current intersity depends on the tape used. Fuji FM-C90 regular tape and Fuji FC-60 chrome tape were used to adjust the currents in the factory.

Follow the procedure below for readjustment.

Level meter deflection, bias current and playback sensitivity must be adjusted in advance.

Adjustment for normal tape (e.g. FM-90)

1) Set the equalizer and bias switches to NORMAL.
2) Set the deck to the record mode. Input 1kHz signals from MIC or LINE IN jacks (with a level of -50dBs approx. for the MIC input, or -10dBs approx. for the LINE IN input) and adjust the recording volume controls so that the level of Line out terminals are -5.5dBs.
3) After setting the signal level in this way, record the signal on blank tape.
   Playing back the tape just recorded, adjust VR104 (L-ch) and VR204 (R-ch) so that the level of LINE OUT terminals are -5.5dBs. Repeat the recording and playback adjustments if necessary.

5. Dolby NR circuit

(See Dolby NR circuit board = page 14)

1) Set the Dolby NR circuit in the record mode, and the FET gate short to ground.
2) Adjust two semi-fixed variable resistors VR301,401 so that the voltage of it's center terminal become maximum.
3) Apply 5kHz sine wave signal to input terminal of Dolby circuit. Adjust the INPUT level so that the level of REC MONI terminal is 17.5mV (-33dBs).
4) Check the level of NR OUT terminal, when NR SW terminal shorts to ground.
5) When NR SW terminal opens, adjust two semi-fixed variable resistor VR303,402 so that the level of NR OUT terminal is +10dB ±0.25dB rise at 4) step.
6) When FET gate opens, adjust two semi-fixed variable resistors VR301,401 so that NR OUT terminal level is -2dB ±0.25dB rise at 5) step.
7) Replace fet gate short and check that level at REC OUT terminal returns exactly to that observed in step 6) above.
8) Adjust the INPUT level so that REC MONI terminal level is -2.5dBs.
   Check the NR OUT terminal level is not changed (0.5dB is limit) when NR SW terminal open and short to ground.
9) Set the playback mode.
   Adjust the INPUT level so that REC MONI terminal level is -2.5dBs. Check Line out terminal level is not changed (0.5dB is limit) when the NR SW terminal open and short to ground.

Mechanism adjustment

1. Take-up torque

Standard torque: 40~60 gr-cm

If not as specified,

1) Replace the take-up lever arm (Fig. 14 ①).
2) Replace the take-up lever arm pressure spring.
3) Clean or replace the capstan belt (Fig. 14 ②).
4) Clean the right-side reel rubber outer surface, or replace the reel rubber.

2. Fast forward torque

Standard torque: 70 gr-cm or more

If not as specified,

1) Clean the right-side reel rubber outer surface, or replace the reel disc ass'y (Fig. 15 ③).
2) Clean the fast forward idler, or replace the fast forward idler ass'y ④.
3) Clean the flywheel outer surface and belt.

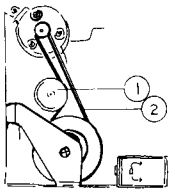


Fig. 14

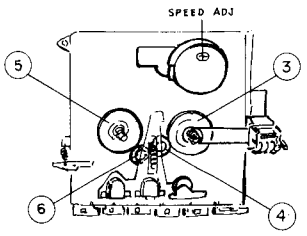


Fig. 15

3. Rewinding torque

Standard torque: 70 gr-cm or more

If not as specified,

1) Clean the left-side reel ⑤ outer surface, or replace the reel disc ass'y ⑤.
2) Clean the rewind idler ⑥.
3) Clean the flywheel outer surface and belt.

4. Tape speed

Standard speed: 3000Hz ±2% (at playing a 3000Hz test tape)

If not as specified,

1) Insert your driver in hole with the motor up side and adjust a semi-VR for speed control in the motor case.
2) Replace the motor.

Cleaning and Oiling

Auto-stop check-ups and adjustments

1. Mechanism section

When the magnet keeps stopping, and the cassette is automatically stopped, it is necessary to check the followings;

1. Check to see whether the belt is broken off.
2. Check to see whether the magnet-pulley and/or magnet is taken off.
3. Check to see whether the lead switch is switched off.

2. Checking circuits for operation

When the rewinding operation approaches the end, the ejection of the cassette tends to occur.
For this reason, it is necessary to check the control circuits for operation.

1. Cleaning

Clean the contact surfaces of the record/playback head, capstan and pinch roller with the tape.
If the head is dirty, tone quality will be greatly impaired, or erasure will be imperfect.
Clean them with a cloth moistened with alcohol, benzine, or trichloroethylene.
Keep the cabinet free from these chemicals, or the surface will be dissolved.

2. Oiling

Feed one or two drops of machine oil to the rewind roller shaft, pinch roller shaft and magnet pully shaft once or twice a year under normal conditions of use.
Avoid oiling them excessively, or rotation may become irregular because of oil splashes.

Trouble Shooting

Electrical circuit

1. Playback tone quality is poor

1) Check the record/playback head for dust.
2) Check the record/playback head for wear.
   If worn excessively, the loss of treble response will result.
3) Check wiring for a short-circuit.
   Check each transistor for condition.
4) Check the noise reduction circuit for condition.
   (This check-up should be made by turning on and off the switch off the Dolby NR.)

2. Recording tone quality is poor

The playback tone quality of a recorded tape such as the audition tape is good, but the recording by this unit produces poor tone quality. In this case, the unit should be checked in the following manner.

1) By monitoring a music while recording, check the tone quality.
2) If found poor, check the wiring of the recording system for a broken wire and short-circuit.
   Check transistor for function by measuring voltage.
3) If no irregalarity is found, check the recording bias current. Also check the oscillation circuit.
4) Check the noise reducing circuit for operation.

3. For other failures, check the unit in the same manner as other amplifiers.

Mechanism section

If wow and flutter increase, check the following points.
If there is defect in revolving parts, the wow and flutter generated will increase in propotion to the number of revolutions.
Play a 3000Hz test tape, and defective part can be detected from the sound.

Defective Part	Sympton	Remedy
Capstan	Capstan shaft has excessive run-out. Flywheel turns heavily. (shaft seisure, thrust play etc.)	Replace flywheel. Adjust plastic screw with flywheel holder.
Pinch roller	Rough rotation (Deformation scratches, or dust) Angle is incorrect. Pressure is incorrect.	Replace pinch roller. Clean adjust so that it is parallel to capstan. Adjust spring.
Capstan belt	Belt has undue run-out. Belt is dirty or slippery.	Replace take-up belt. Clean or replace.
Back tension	Back tension is irregular, or back tension is too strong.	Replace supply disc. Replace back tension spring (under supply disc), or apply silicon grease.
Motor	Motor shaft has undue run-out. Motor pulley is oily and dusty.	Replace motor. Clean motor pulley.
Take-up lever arm	Pulley has deflection. Pulley is stuck.	Replace take-up idler arm.

Circuit Board Parts

Main Circuit Board

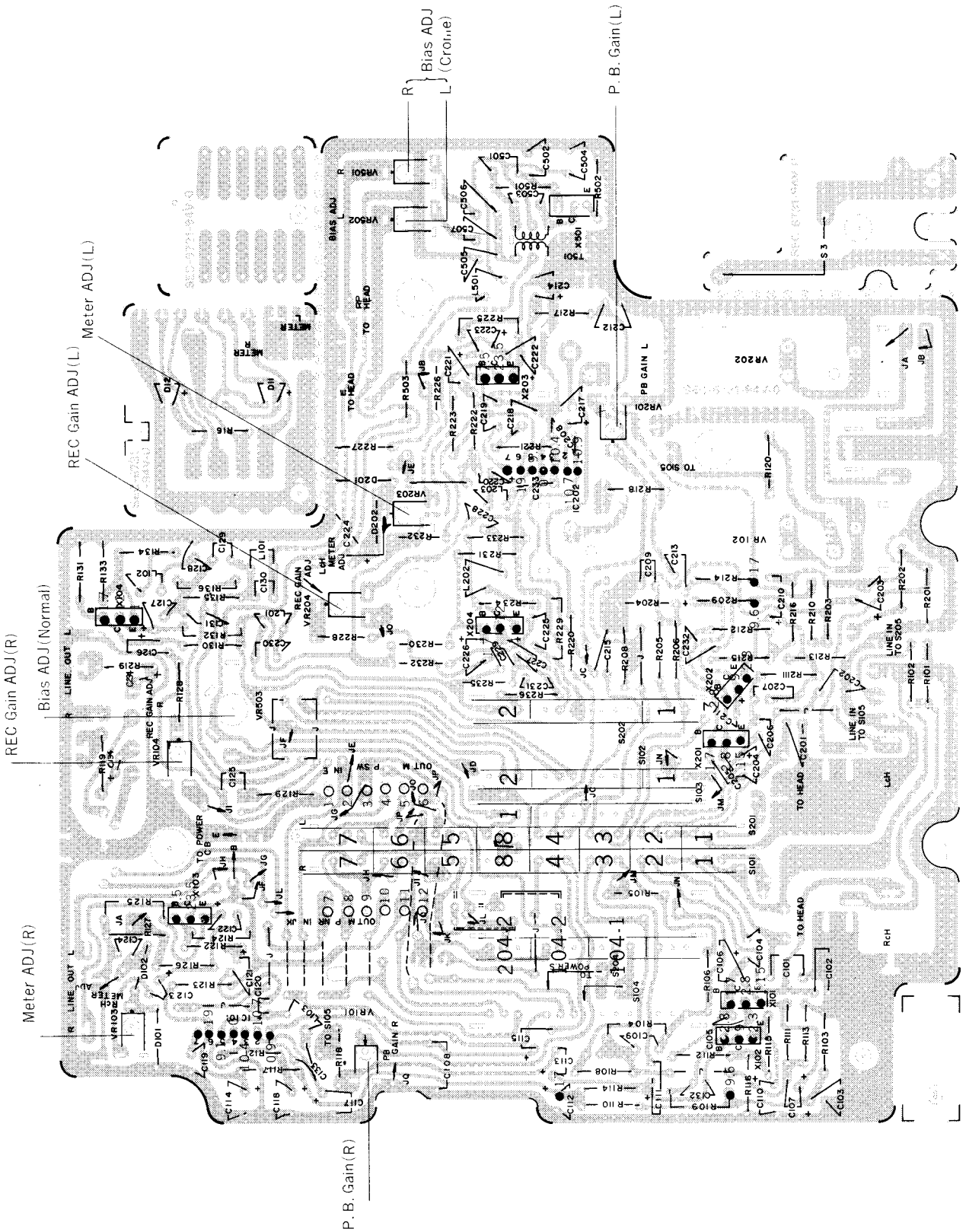


Fig. 16

Main Circuit Board Parts List

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	*TAA294105-01	Circuit Board		1
	*TAJ294306-0A	Pin Jack Board Ass'y		1
	*TAJ294321-0A	Jack Board Ass'y	CD-1740A,U	1
	*TAJ294304-0A	"	CD-1740B,E	1
VR102,202	*QVZ5012-001	Slide Volume		2
S102,202,104,204	*QSL8242-001	Lever SW		2
S103,203	*QSL4242-001	"		1
S101,201	QSSG201-001	Slide SW		1
(OSC Circuit)				
	*TAC294421-01	OSC Coil		1
X501	2SC828AQRS	Transistor		1
R501	QRD142K-563	C. Resistor	56kΩ ¼W	1
R503	" -181	"	180Ω "	1
R502	" -100	"	10Ω "	1
C501,503	QFM42AK-103	Mylar Capacitor	0.01μF 100V	2
C502	" -153	"	0.015μF "	1
L501	TAC000324-03	Inductor		1
C506,507	QCS12HK-221	Fixed Ceramic Capacitor	220PF	2
C505	*QFS42BK-222	Polystyrol Capacitor	2200PF	1
C504	QEW41EA-336	E. Capacitor	33μF	1
VR501,502	QVP8A0B-024	V. Resistor	20kΩ	2
VR503	QVZ3111-002	"		1
(Rec/PB Amp Ass'y)				
X101,102,201,202	2SC1327U	Si Transistor		4
X104,204	2SC828AQRS	"		2
X103,203	2SC1383QR	"		2
D101,102,201,202	OA-90	Ge Diode		4
	TA7140P-B	IC		2
R101,103,116,201, 203,216	QRD142K-392	C. Resistor	3.9kΩ ¼W	6
R102,202	" -222	"	2.2kΩ "	2
R104,204	" -334	"	330kΩ "	2
R105,111,205,211	" -223	"	22kΩ "	4
R106,108,110,206, 208,210	" -103	"	10kΩ "	6
R109,209	" -333	"	33kΩ "	2
R112,212	" -154	"	150kΩ "	2
R113,213	" -221	"	220Ω "	2
R114,214	" -183	"	18kΩ "	2
R115,215	" -152	"	1.5kΩ "	2
R117,217	" -102	"	1kΩ "	2
R118,218,131,231	" -473	"	47kΩ "	4
R119,219	" -224	"	220kΩ "	2
R120,220	" -122	"	1.2kΩ "	2
R121,221	" -101	"	100Ω "	2
R122,222	" -331	"	330Ω "	2
R123,133,223,233	" -681	"	680Ω "	4
R124,224	" -104	"	100kΩ "	2
R125,225	" -391	"	390Ω "	2
R126,134,226,234	" -101	"	100Ω "	4
R127,227	" -470	"	47Ω "	2
R128,228	" -103	"	1kΩ "	2
R129,229,136,236	" -393	"	39kΩ "	4
R130,230	" -564	"	560kΩ "	2
R132,232	" -682	"	6.8kΩ "	2
R135,234	" -273	"	27kΩ "	2

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
C103,203	QEB41HM-336	E. Capacitor	33μF 50V	2
C107,207	QEB41EM-105	〃	1μF 25V	2
C110,210	QEB41EM-336	〃	33μF 〃	2
C111,113,115,211, 213,215,134,234	QEB41EM-335	〃	3.3μF 〃	8
C112,212,114,214	QEW41EA-336	〃	33μF 〃	4
C117,217	QEW41CA-106	〃	10μF 16V	2
C118,218	〃 -107	〃	100μF 〃	2
C120,220,121,221	QEW41EA-475	〃	4.7μF 25V	4
C122,222	QEW41CA-336	〃	33μF 16V	2
C123,223	〃 -105	〃	1μF 〃	2
C124,224	〃 -335	〃	3.3μF 〃	2
C126,127,226,227	QEW41EA-475	〃	4.7μF 25V	4
C104,204	QEE41EM-335	〃	3.3μF 〃	2
C102,202	QFM41HK-222	Mylar Capacitor	2.2kΩ ¼W	2
C109,209	〃 -103	〃	10kΩ 〃	2
C119,219	〃 -102	〃	1kΩ 〃	2
C125,225	〃 -333	〃	33kΩ 〃	2
C128,228	〃 -123	〃	12kΩ 〃	2
C129,229	〃 -152	〃	1.5kΩ 〃	2
C101,201	QCS11HK-821	Fixed Ceramic Capacitor	820PF 50V	2
C105,205	〃 -330	〃	33PF 〃	2
C106,206	〃 -101	〃	100PF 〃	2
C131,231	〃 -391	〃	390PF 〃	2
C130,230,133,233	〃 -151	〃	150PF 〃	4
C132,232	〃 -680	〃	68PF 〃	2
C108,208	〃 -221	〃	220PF 〃	2
VR101,201 103,203	QVP8A0B-054	Semi Fixed Resistor	50kΩ	2
VR104,204	〃 -013	〃	1kΩ	2
	*QMV0601-101	Connector		2
L103,203,101,201	TAC000324-01	Inductor		4
L102,202	〃 -02	〃		2
	E43727-002	Tab		43
	*TAS294418-01	Shield Plate		1
	* 〃 -02	〃		1
	*SR103D	Light Emitting Diode		1
	SR103W	〃		1
	QRD142K-821	C. Resistor	820Ω ¼W	1
	FG9010-001	Tab		3
	QMC0657-001	Socket Ass'y		1

Power Supply Circuit Board

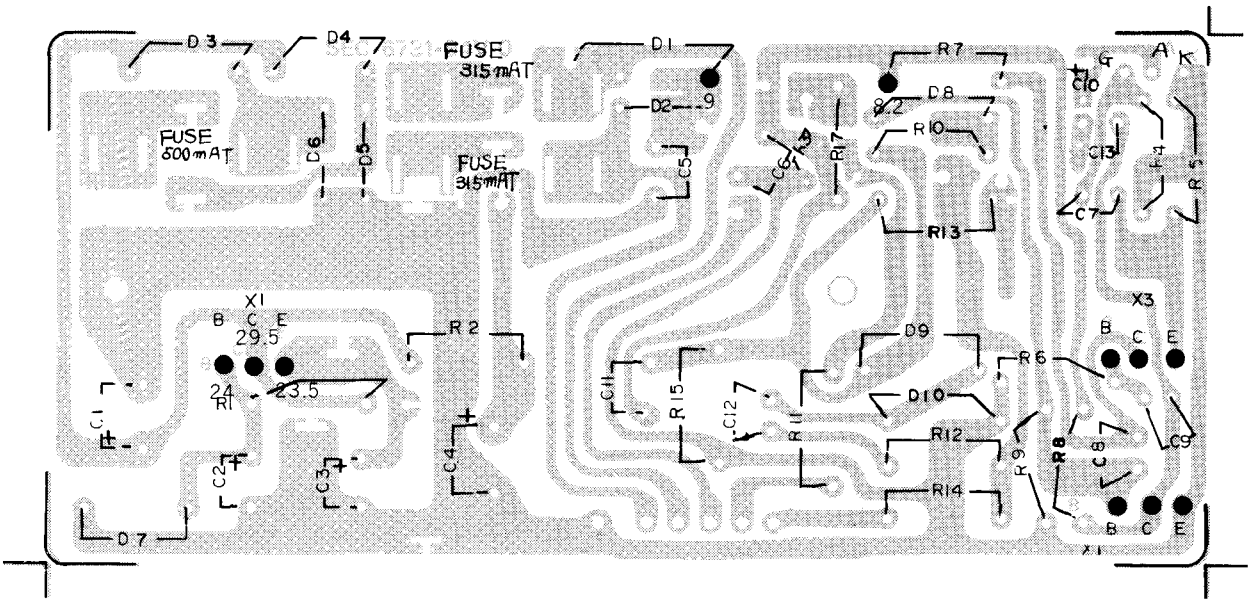


Fig. 17

Power Supply Circuit Board Parts List

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	*TAA294312-01	Circuit Board		1
	QMC0627-001	Plug Ass'y		1
X2,3	2SC828RST	Si Transistor		2
	2SF656	SCR		1
D1,2,3,4,5,6	T30155-001	Si Diode		6
D7	RD24E	Zener Diode		1
D8,9,10	OA-90	Ge Diode		3
C1	QEW41HA-227	E. Capacitor	220μF 50V	1
C4	" -337	"	330μF "	1
C2,3	QEW41EA-227	"	220μF 25V	2
C7	" -105	"	1μF "	1
C5	QEW41CA-227	"	220μF 16V	1
C6	QEW41AA-227	"	220μF 10V	1
C8,12	" -476	"	47μF "	2
C9	" -335	"	3.3μF "	1
C10,13	QEW41CA-105	"	1μF	2
C11	QEW41CM-227	"	220μF	1
R9	QRD142K-472	C. Resistor	4.7kΩ ¼W	1
R6	" -823	"	82kΩ "	1
R7,8	" -472	"	4.7kΩ "	2
R13,15	" -332	"	3.3kΩ "	2
R5,10	" -272	"	2.7kΩ "	2
R4	" -103	"	10kΩ "	1
R11,14	" -471	"	470Ω "	2
R12	" -821	"	820Ω "	1
R2	" -681	"	680Ω "	1
R3	" -332	"	1.5kΩ "	1
	TAZ000331-02	Fuse Holder	(CD-1740B,E)	6
	*QMG8301-001	"	(CD-1740B)	1
	E40516-001	Tab		8
	QFM51A2-R50	Fuse	CD-1740E,B	1
	" -315	"	CD-1740E,B	2

Dolby NR Circuit Board

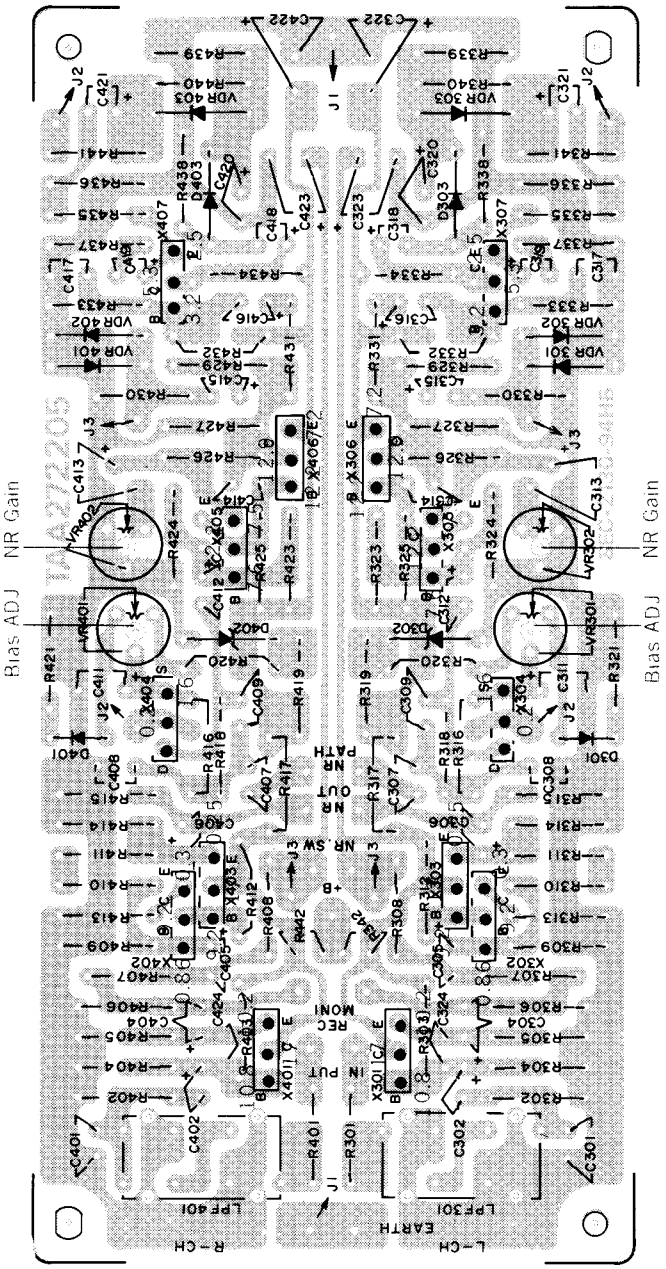


Fig. 18

Dolby NR Circuit Board Parts List

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	TAA272205-01	Circuit Board		1
R301,401	QRD142K-222	C. Resistor	2.2kΩ ¼W	2
R302,402,319,419	" -562	"	5.6kΩ "	4
R303,403	" -563	"	56kΩ "	2
R304,404,308,408	" -104	"	100kΩ "	4
R305,321,334,405, 421,434	" -272	"	2.7kΩ "	6
R306,315,330,406, 415,430	" -333	"	33kΩ "	6
R307,407	" -823	"	82kΩ "	2
R309,310,312,325, 409,410,412,425	" -153	"	15kΩ "	8
R311,411,332,432	" -124	"	120kΩ "	4
R318,418	" -561	"	560Ω "	2
R314,414,317,417, 335,435	" -102	"	1kΩ "	6
R316,416	" -332	"	3.3kΩ "	2
R318,418,333,433	" -473	"	47kΩ "	4
R320,420	" -100	"	10Ω "	2
R323,423	" -105	"	1MΩ "	2
R324,424	" -185	"	1.8MΩ "	2
R326,331,329,426, 431,429	" -822	"	8.2kΩ "	6
R327,427	" -103	"	1kΩ "	2
R336,436	" -180	"	18Ω "	2
R337,437	" -470	"	47Ω "	2
R338,438	" -153	"	15kΩ "	2
R339,340,341,439, 440,441	" -224	"	220kΩ "	6
R342,442	" -271	"	270Ω "	2
C301,410	QFM41HJ-682	Mylar Capacitor	6800PF	2
C302,304,306,402, 404,406	QEW41EA-106	E. Capacitor	10μF 25V	6
C305,405	QEW41CA-106	"	10μF 16V	2
C307,407	QFM41HJ-562	Mylar Capacitor	5600PF	2
C308,408	" -273	"	0.027μF	2
C309,409	" -472	"	4700PF	2
C331,315,318,411, 415,418	QEW41CA-106	E. Capacitor	10μF 16V	6
C312,316,319,320 412,416,419,420	QEB41HK-104	"	0.1μF 25V	8
C313,413	QEW41CA-476	"	47μF 16V	2
C314,414	QCS11HK-221	Fixed Ceramic Capacitor	220PF 50V	2
C317,417	QFM41HJ-102	Mylar Capacitor	1000PF	2
C321,421	QEB41HK-334	E. Capacitor	0.33μF 25V	2
C322,422	QEW41CA-227	"	220μF 16V	2
C323,423	QEW41EA-227	"	220μF 25V	2
LPF301,401	TAC272436-01	Low Pass Filter		2
VR301,401	QVP4A0B-473	V. Resistor	47kΩ	2
VR302,402	" -102	"	1kΩ	2
C324,424	QCS11HK-681	Fixed Ceramic Capacitor	680PF 50V	2
X301,302,303,305, 307,401,402,403, 405,407	2SC828RST	Transistor		10
X306,406	2SA564QRS	"		2
X304,404	2SK30A-D	F.E.T		2
VR301,302,303, 401,402,403	1S1211	Varistor		6
D301,303,401,403	OA-90	Ge Diode		4
D302,402	RD6, 8EC	Zener Diode		2
	E43727-002	Tab		12

Mechanical Component List

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
1	*TGB294314-0A	Chassis Base Ass'y		1
2	*TGB294436-0A	Reel Disk Bracket Ass'y		1
3	TER265487-01	Brake Rubber		2
4	*TGB294441-0A	Rewind Bar Ass'y		1
5	*TGB294443-0A	Record Bar Ass'y		1
6	*TGB294445-0A	Play Bar Ass'y		1
7	*TFW294447-01	Play Bar Spring		1
8	*TGB294448-0A	FF Bar Ass'y		1
9	*TGB294451-0A	Stop Bar Ass'y		1
10	*TGB294454-0A	Pause Bar Ass'y		1
11	*TGB294457-0A	Slide Base Ass'y		1
12	*TFP294460-01	Spring Plate		1
13	TJN265559-01	Silencer		1
14	*TGH294461-0A	Capstan Metal Ass'y		1
15	T47829-001	Washer		2
16	T47828-001	Nut		1
17	*TGP294462-0A	Take up Disk Ass'y		1
18	*TGP294464-0A	Supply Disk Ass'y		1
19	T31063-001	R.P. Head Ass'y		1
20	*TFP294513-01	R.P. Head Spring		1
21	*T30302-066	R.P. Head Coller		1
22	THS265480-0A	E. Head Ass'y		1
23	*TFB294466-01	Wire Clamper		1
24	*T30302-070	E. Head Coller		1
25	* T30301-115	Spring	E. Head	1
26	TGB265552-0B	Pinch Roller Arm Ass'y		1
27	TFW265477-01	Pinch Roller Spring		1
28	*TFB294467-01	Rec. Lock Lever		1
29	*TGB294468-0A	Push Button Cam Ass'y		1
30	*TFB294470-01	Stopper		1
31	*TFB294512-01	Select Lever		1
32	*TFW294471-01	Spring		1
33	*TGB294472-0A	Switch Bracket Ass'y		1
34	*TFW294475-01	Actuator		1
35	*TFP294476-01	Spring Plate		1
36	*TFB294477-01	Brake Lever		1
37	*TFB294478-01	Review Lever		1
38	T43909-001	Metal		1
39	*TGP294479-0A	Take up Lever Ass'y		1
40	*TFW294482-01	Lever Spring		1
41	*TFB291414-01	Record Safety Lever		1
42	*TGB294484-0A	Record Lever Ass'y		1
43	*TFH294487-01	Metal		1
44	*TGX294488-0A	FF Arm Ass'y		1
45	T47507-001	FF Spring		1
46	*TFH294492-01	Metal		1
47	*TGX294490-0A	Rewind Idler Arm Ass'y		1
48	*TFH294491-01	Metal		1
49	*TED294316-0A	Flywheel Ass'y		1
50	*TFB294493-01	Flywheel Holder		1
51	TEP265498-01	Thrust Washer		1
52	*TGN294317-0A	Counter Ass'y		1
53	*TFB294494-01	Counter Bracket		1
54	*TFB294495-01	Lock Lever		1
55	T43909-001	Metal		1
56	*TDP294319-0A	D.C. Solenoid Ass'y		1
57	*TEB294496-01	Capstan Belt		1

Mechanical Component (1)

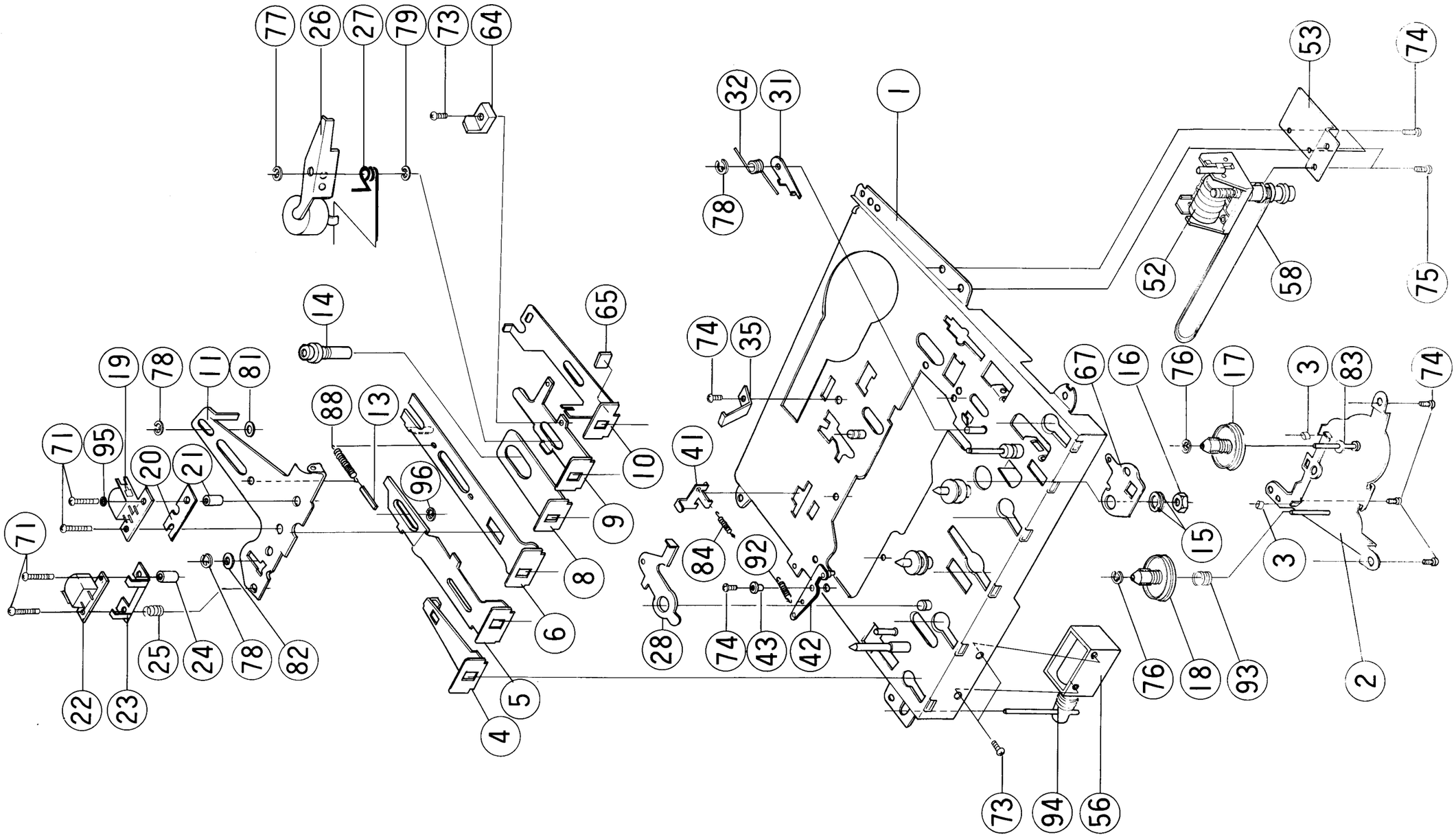


Fig. 19

Mechanical Component (2)

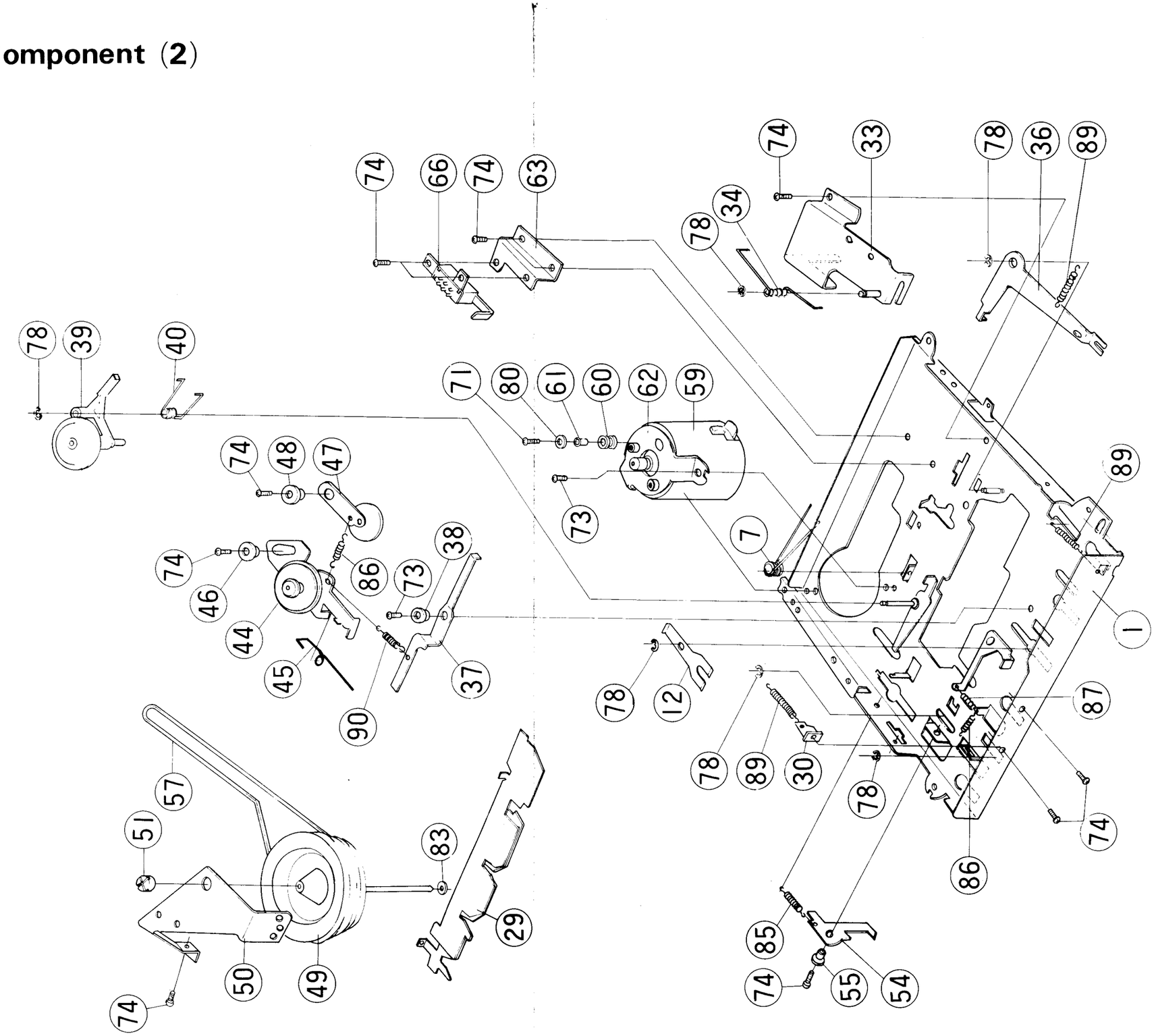


Fig. 20

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
58	*TEB294497-01	Counter Belt		1
59	*T48143-00E	Motor Ass'y		1
60	53492	Rubber Bushing		3
61	T30302-058	Collar		3
62	*TFB294499-01	Motor Bracket		1
63	*TFB294500-01	Switch Bracket		1
64	*TEP294514-01	Cassette Lever		1
65	TFG294521-01	Spacer		1
66	T30483-00D	Slide Switch		1
67	TFB294522-01	Spacer		1
71	LPSP2608Z	Screw	Motor Ass'y	2
72	SPSP2008Z	"	R.P. Head Ass'y, E. Head	4
73	SPSP2605Z	"	Review Lever, Cassette Lever	6
74	SPSP2606Z	"	D.C. Solenoid Ass'y, Motor Bracket Stopper, SW Bracket Slide SW, Spring Plate Record Lever Ass'y FF Arm Ass'y, Flywheel Holder Rewind Idler Arm Ass'y, Counter Bracket, Lock Lever SW Bracket, Reel Disk Bracket	18
75	SSSP3005Z	"	Counter	2
76	REE1500	E Ring	Take up Disk, Supply Disk	2
77	REE2000	"	Pinch Roller	1
78	REE2500	"	Stop Bar, Slide Bar Select Lever, Actuator Brake Lever, Take up Lever Ass'y	8
79	REE4000	"	Pinch Roller	1
80	Q03091-151	Washer	Motor Ass'y	3
81	Q03093-102	"	Slide Bar	1
82	" -430	"	"	1
83	" -611	"	Take up Disk Ass'y, Flywheel Ass'y	2
84	T30300-121	Spring	Record Safety Lever	1
85	" -063	"	Lock Lever	1
86	" -126	"	Rewind Idler Arm	1
87	" -137	"	FF Bar	1
88	" -139	"	Play Bar & Slide Bar	1
89	" -140	"	Stop Bar, Rewind Bar Brake Lever	3
90	" -151	"	FF Arm Ass'y	1
91	" -150	"	Push Button Cam Ass'y	1
92	" -151	"	Rec. Lever	1
93	T30301-013	"	Supply Disk	1
94	" -106	"	D.C. Solenoid Ass'y	1
95	WLS2000	Lock Washer	R.P. Head Ass'y	1
96	REE3000	E Ring	Rew. Bar	1

Enclosure Assembly

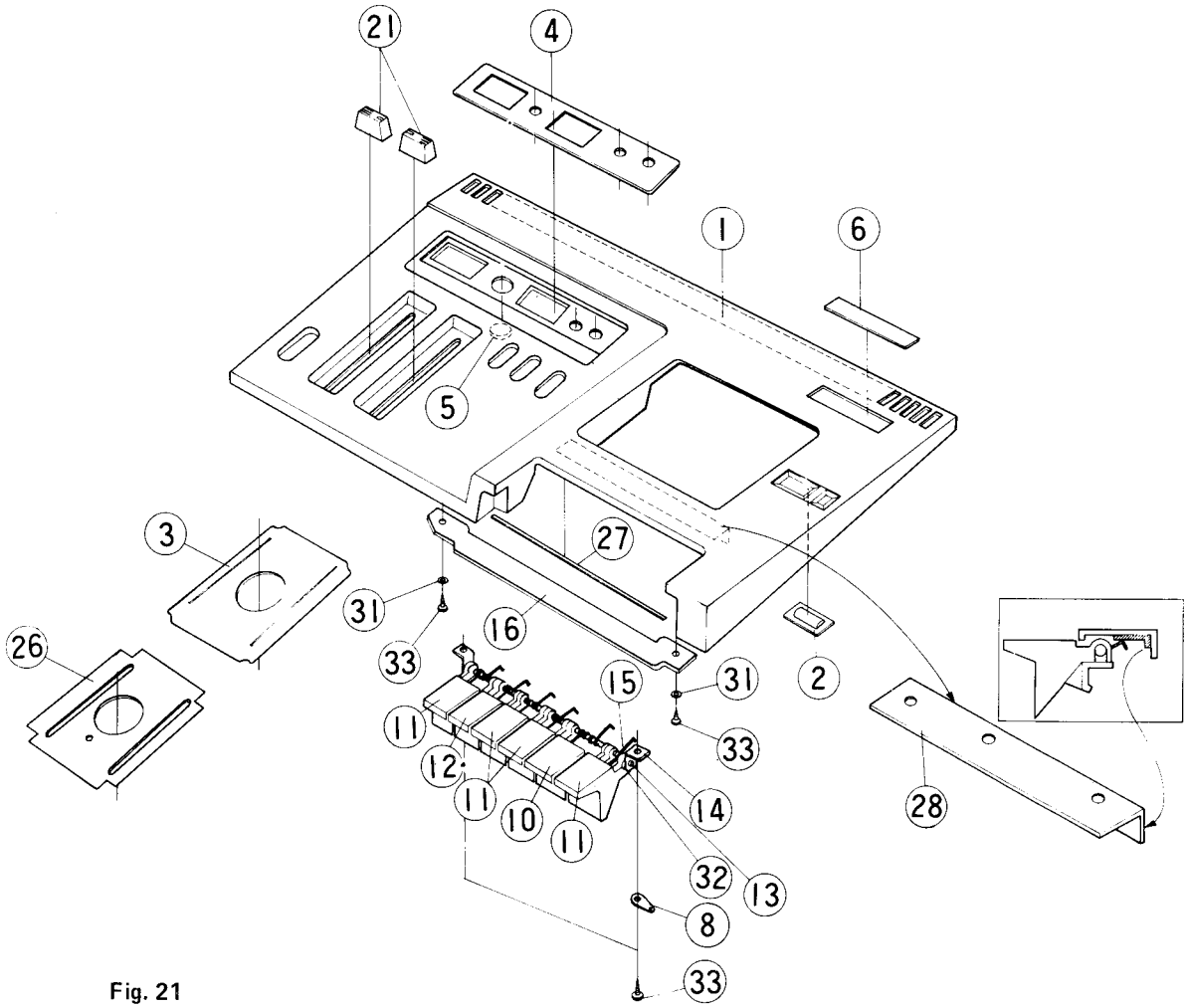


Fig. 21

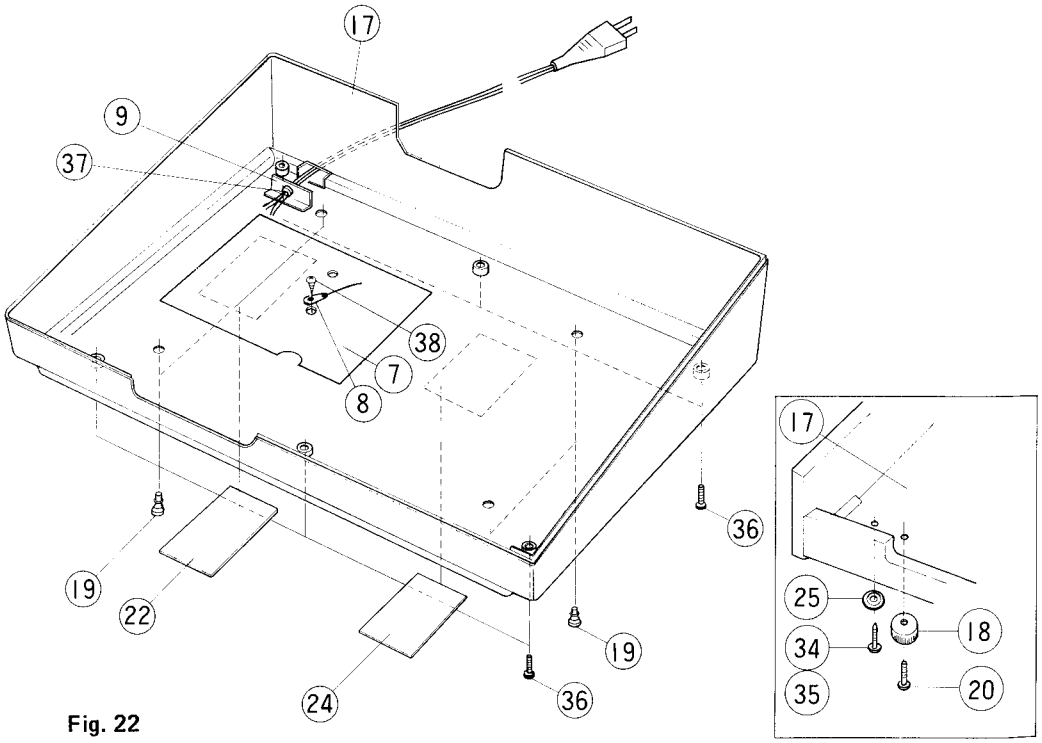


Fig. 22

Enclosure Assembly Parts List

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	*TJM294101-0B	Top Panel Ass'y	CD-1740U,A	1set
	* " -0E	"	CD-1740B,E	1set
	* " -0F	"	CD-1740E2	1set
1	*TJM294102-02	Top Panel	CD-1740B,E	1
"	* " -04	"	CD-1740E2	1
"	* " -06	"	CD-1740,U,A	1
2	*TJE294401-01	Counter Lens		1
3	*TJN294402-01	Level Net		1
4	*TJP294404-01	Indicator Plate		1
5	T45875-01	Lamp Cover	REC	1
6	*TJL294405-05	Mark	CD-1740B,E	1
"	* " -06	"	CD-1740E2	1
"	* " -07	"	CD-1740,U,A	1
7	TAS294523-01	Shield Plate		1
8	51739-02	Ground Lug	for Shield Plate, CD-1740B,E Button Shaft	2
9	TFB294413-01	Plate	CD-1740B,E	1
10	*TJB294302-01	Push Button	STOP/EJECT, CD-1740B,E	1
"	* " -02	"	" CD-1740E2	1
"	* " -03	"	" CD-1740,U,A	1
11	*TJB294301-01	"	FF, REW, PAUSE, PLAY, REC CD-1740B,E	4
"	* " -03	"	CD-1740E2	4
"	* " -05	"	CD-1740,U,A	1
12	*TJB294301-02	"	REC, CD-1740B,E	1
"	* " -04	"	" CD-1740E2	1
"	* " -06	"	" CD-1740,U,A	1
13	*TFH294406-01	Shaft		1
14	*TFB294407-01	Shaft Holder		2
15	*TFW294408-01	Spring	Push Button	6
16	*TEP294322-01	Leather Plate	Push Button, CD-1740U,A	1
"	TEP294306-01	"	" CD-1740B,E	1
17	*TJW294107-0A	Wood Bottom Ass'y	CD-1740U	1
"	* " -0B	"	CD-1740	1
"	TJM294103-0A	"	CD-1740E	1
18	QZF2308-001	Foot	CD-1740A,U	4
19	T42479-01	"	CD-1740B,E	4
20	MRSP3113Z	Wood Screw	CD-1740A,U	4
21	*TJK294411-01	REC. Volume Knob		2
22	*TJL000313-68	Name Plate	CD-1740U	1
"	* " -67	"	CD-1740E	1
"	* " -69	"	CD-1740B	1
"	* " -70	"	CD-1740A	1
23	MRBP2707B	Wood Screw	CD-1740A,U for Name Plate	4
24	*TJL294422-02	Dolby Label	CD-1740A,U	1
"	* " -01	"	CD-1740B,E	1
25	E7857-001	Mounting Washer	(CABI + CABI), CD-1740A,U	6
26	TAS294516-01	Shield Paper		1
27	TJN294520-01	Felt Cushion		1
28	TJP294517-01	Rib Plate		1
31	WNS3500Z	Washer	Feather Plate	2
32	Q03093-103	"	Push Button	7
33	SBSB3008ZS	Screw	Shaft Holder, Feather Plate	4
34	SDBP3016RS	"	Cabi + Cabi, CD-1740U,A	5
35	SDBP3020RS	"	" CD-1740U,A	1
36	SDBP3008RS	"	" CD-1740B,E	6
37	QHS6374-162	Strain Relief	CD-1740A,B	1
"	QHS3876-163	"	CD-1740E,U	1
38	SBSB3008ZS	Screw	for Shield Plate, CD-1740B,E	1

Electrical Parts List Except Circuit Board Parts

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
1	TDS000334-03	Leaf Swtich		1
2	*TEP294416-01	Joint Foot	Mecha	2
3	*TFB294308-01	Indicator Bracket		1
4	T31593-007	Level Meter		2
5	*TJN294414-01	Cushion	Level Meter	2
6	53492-01	Bushing		2
7	TER272407-01	Lamp Bush		1
8	*TFB294309-01	Bracket (R)		1
9	*TFB294310-01	Bracket		1
10	TAD294515-01	Cover		1
11	*TEP294412-01	P.C.B. Holder		2
12	T48188-002	Pilot Lamp		3
13	*TJK294410-01	Power Knob		1
14	*TFB294525-01	Kick Plate		1
15	TAH294530-01	Cord Guide	CD-1740B,E	1
16	T30155-001	Si Diode		1
17	*TGP294506-0A	Cassette Holder Ass'y	CD-1740B,U	1set
"	*TGP234506-0B	"	CD-1740E2	1set
18	*TFW294501-01	Cassette Holder Spring	(L)	1
19	*TFW294502-01	"	(R)	1
20	*TFH294503-01	Cassette Holder Shaft		1
21	T30302-063	Collar		2
22	*TAS294419-01	Shield Board		1
23	*TAS294311-01	"		1
24	TDS271409-01	Lead Switch		1
25	TER271414-01	Spacer		1
26	S4709-002	Wire Clamp	Power Cord	1
27	QMC0306-001	Plug Ass'y	CD-1740E,U	1
28	QMC0733-001	AC Socket	CD-1740U	1
"	QMC0733-003	"	CD-1740E	1
29	TAP301301-01	Power Trans	CD-1740A,B,E	1
"	*TAP294313-01	"	CD-1740U	1
30	*TFB294307-01	Trans Bracket		1
31	*QSP1110-221	Power Switch		1
32	*TFB294409-01	Switch Bracket		1
33	QHS6374-162	Strain Relief	CD-1740A,B	1
"	QHS3876-162	"	CD-1740E,U	1
34	QMP240B-244	Power Cord	CD-1740A	1
"	QMP9020-002	"	CD-1740B	1
"	QMP3900-244	"	CD-1740E	1
"	QMP7600-244	"	CD-1740U	1
35	FG9060-001	Connector		2
36	QFH43AM-223	Metallized Mylar Cap.	CD-1740A,U	1
37	T47047-001	Condenser Capacitor	CD-1740A,U	1
38	QSM1S01-015	Micro Switch		1
39	*TFB294417-01	Plate		1
40	51739-002	Lug		1
41	TFB294318-01	Cassette Holder Plate		1
42	T47610-001	Reflection Plate		1
43	QSP2210-035	Slide Switch Ass'y		1
44	PSE1610	Spring Pin		1
45	WNB2600	Washer	Leaf SW, Led Circuit, Lead SW	4
46	NNB3000S	Nut	Cassette Holder Ass'y	2
47	DPSP3006ZS	Screw	Dolby C.B. + Bracket, Power Trans, Amp + Bracket	8
48	LPSP2010Z	"	Micro + Mecha	2
49	LPSP2604Z	"	Bracket + Mecha (R)	2
50	LPSP2606V	"	Power Supply C.B. + Mecha, Transistor	2
51	LPSP2606Z	"	Bracket + Mecha, (L) Lead SW	4
52	LPSP2610Z	"	Lead SW	2
53	LPSP3006ZS	"	Mecha + Cabi	2
54	LPSP3008ZS	"	Mecha + Foot + Cabi, Cord Guide	3
55	SPSP2606Z	"	Cassette Holder Plate, Led Circuit, Record Bracket Ass'y, Spring	14
56	SPSP3006ZS	"	Switch Bracket	2
57	SBSB3008ZS	"	Trans Bracket + Cabi AC Socket + Cabi, Power SW + Cabi	6
58	SBSB3012Z	"	Jack Board + Cabi	2
59	SBSB3014Z	"	Amp + Cabi	2
60	SSSP3006ZS	"	Cassette Holder Ass'y	2
61	SPSP2604Z	"	Slide Switch	1
62	TGB294531-0A	Record Bracket Ass'y		1set
63	TFB294524-01	Record Lever		1
64	TFP294527-01	Record Spring		1
65	REE2500	E Ring		1

Electrical Parts List Except Circuit Board Parts

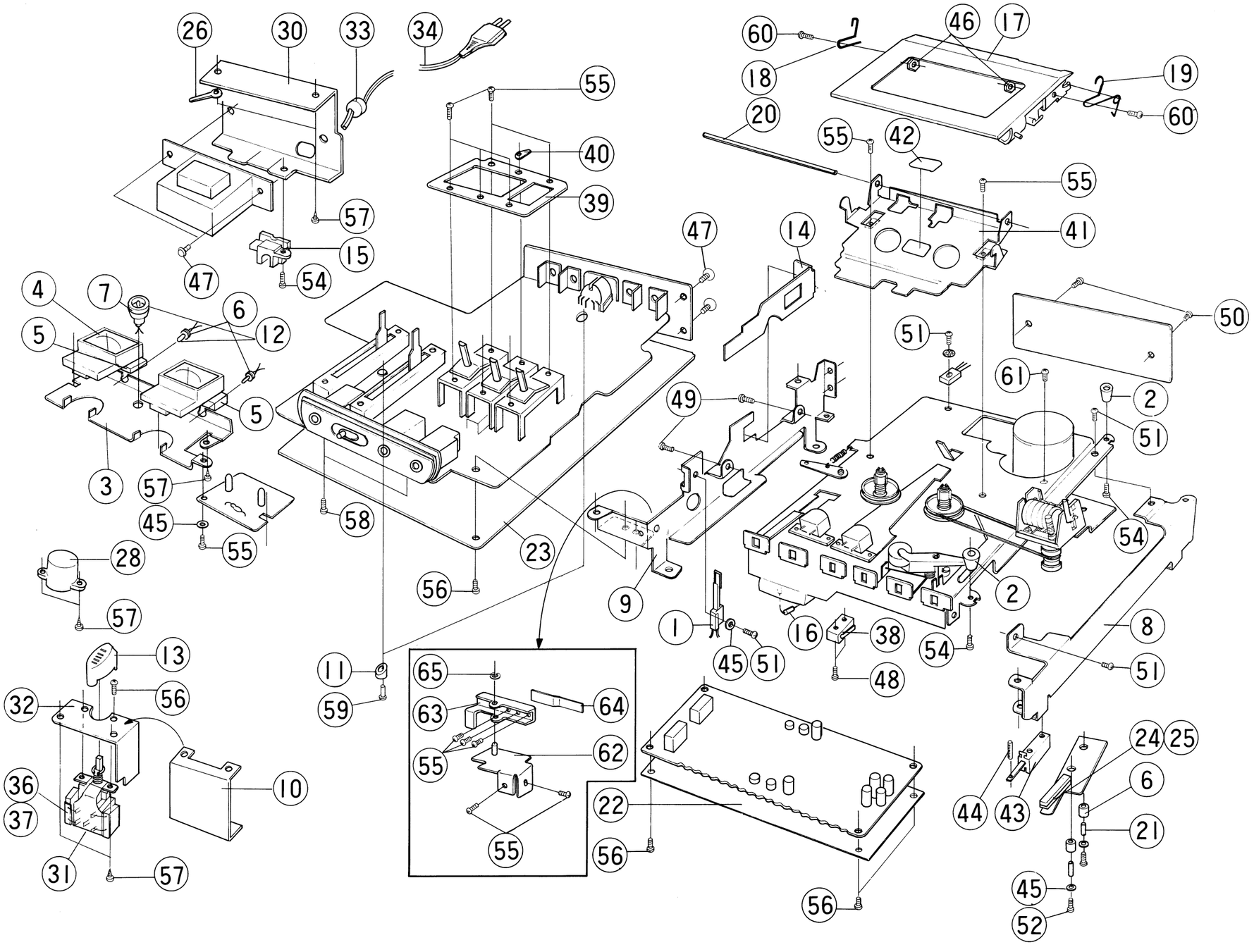
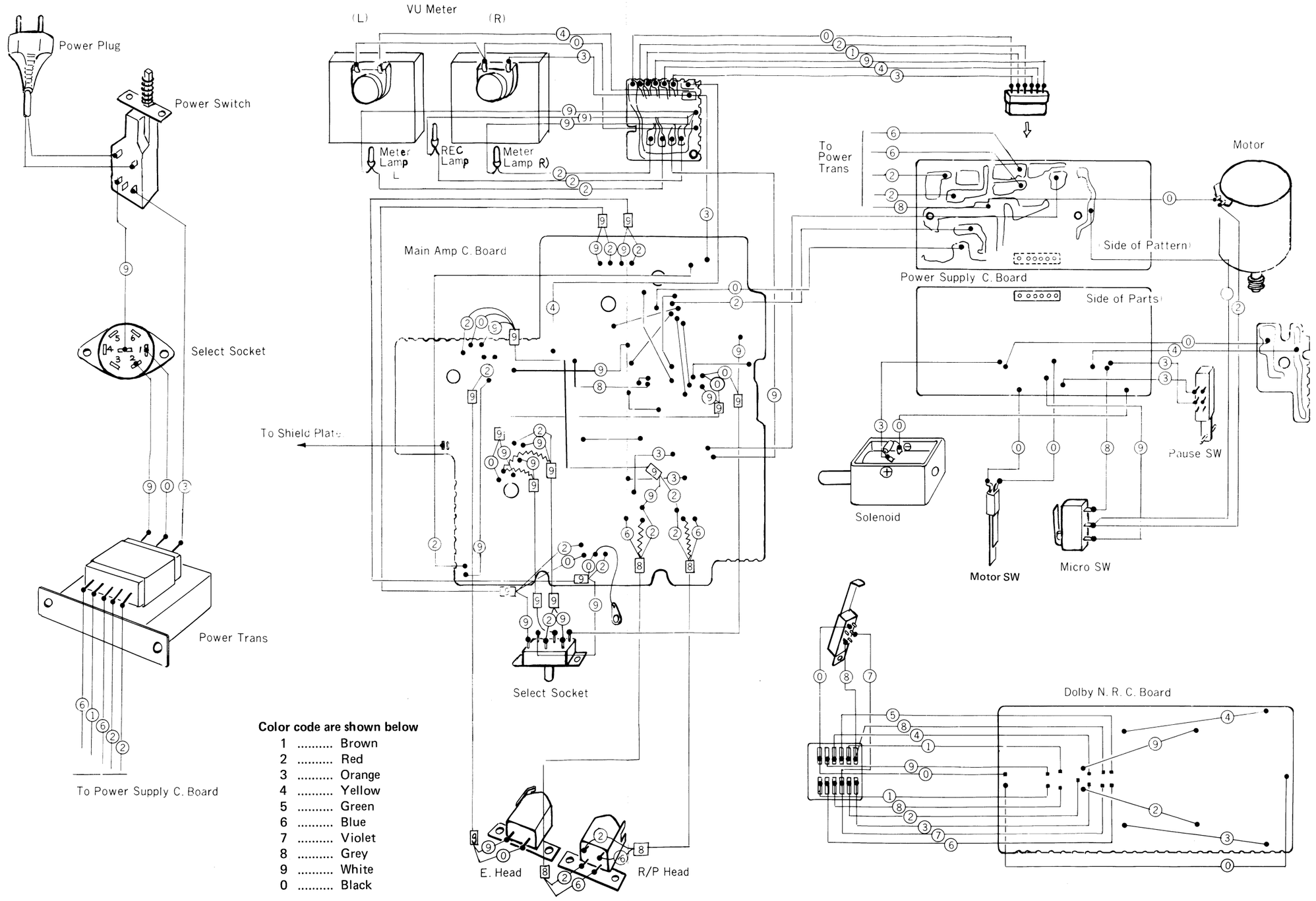


Fig. 23

Wiring

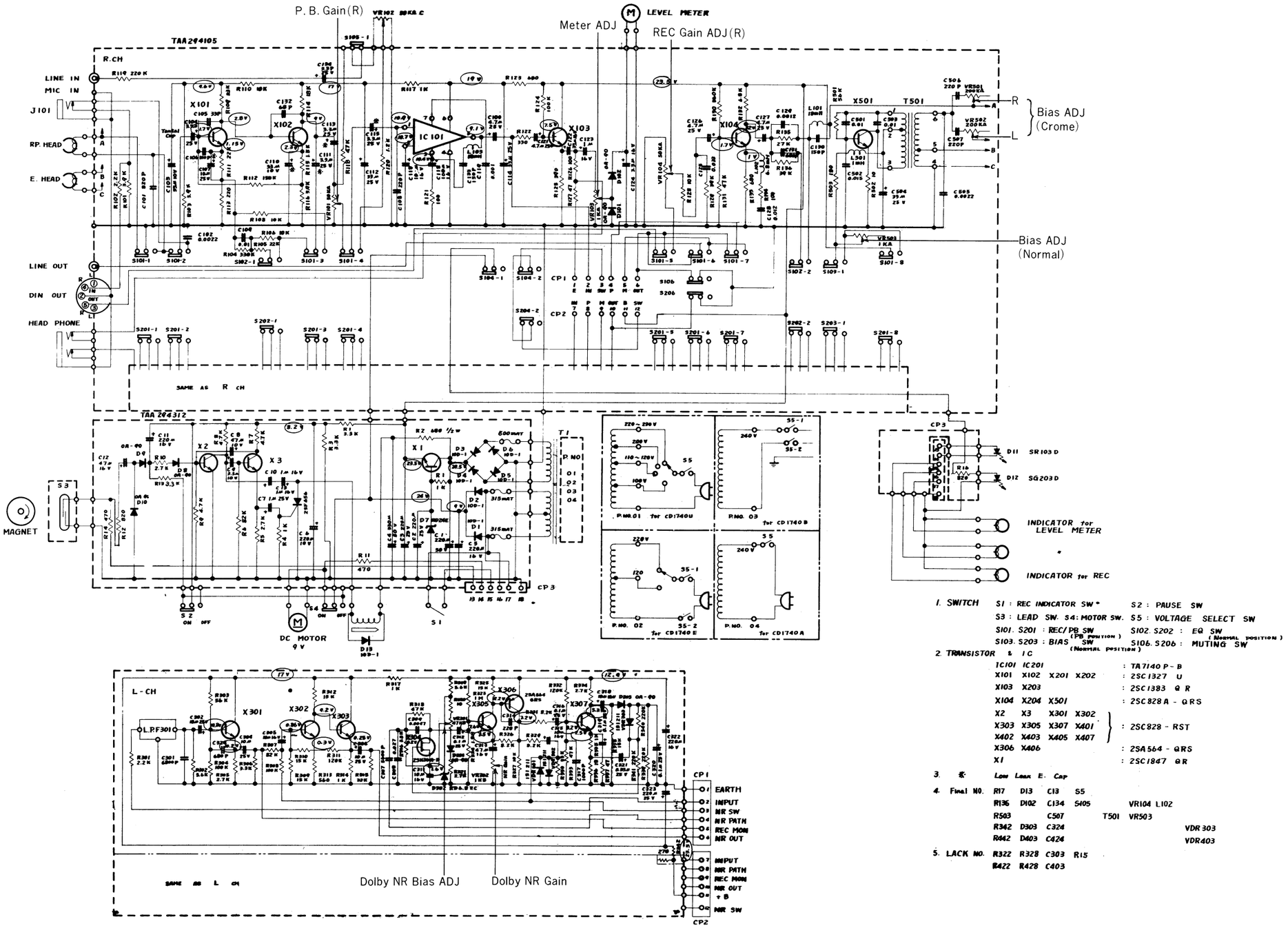


Color code are shown below

1	.....	Brown
2	.....	Red
3	.....	Orange
4	.....	Yellow
5	.....	Green
6	.....	Blue
7	.....	Violet
8	.....	Grey
9	.....	White
0	.....	Black

Fig. 24

Standard Schematic Diagram of CD-1740/A/B/E/U



1. SWITCH
   S1 : REC INDICATOR SW * S2 : PAUSE SW
   S3 : LEAD SW. S4 : MOTOR SW. S5 : VOLTAGE SELECT SW
   S101. S201 : REC/PB SW (PB position) S102. S202 : EQ SW (Normal position)
   S103. S203 : BIAS SW (Normal position) S106. S206 : MUTING SW
2. TRANSISTOR & IC
   IC101 IC201 : TA7140 P - B
   X101 X102 X201 X202 : 2SC1327 U
   X103 X203 : 2SC1383 Q R
   X104 X204 X501 : 2SC828A - QRS
   X2 X3 X301 X302 / X303 X305 X307 X401 / X402 X403 X405 X407 : 2SC828 - RST
   X306 X406 : 2SA564 - QRS
   X1 : 2SC1847 QR
3. ※ Low Leak E. Cap
4. Final NO. R17 D13 C13 S5 / R136 D102 C134 S105 VR104 L102 / R503 C507 T501 VR503 / R342 D303 C324 VDR303 / R442 D403 C424 VDR403
5. LACK NO. R322 R328 C303 R15 / R422 R428 C403

Fig. 25

Block Diagram

Recording System

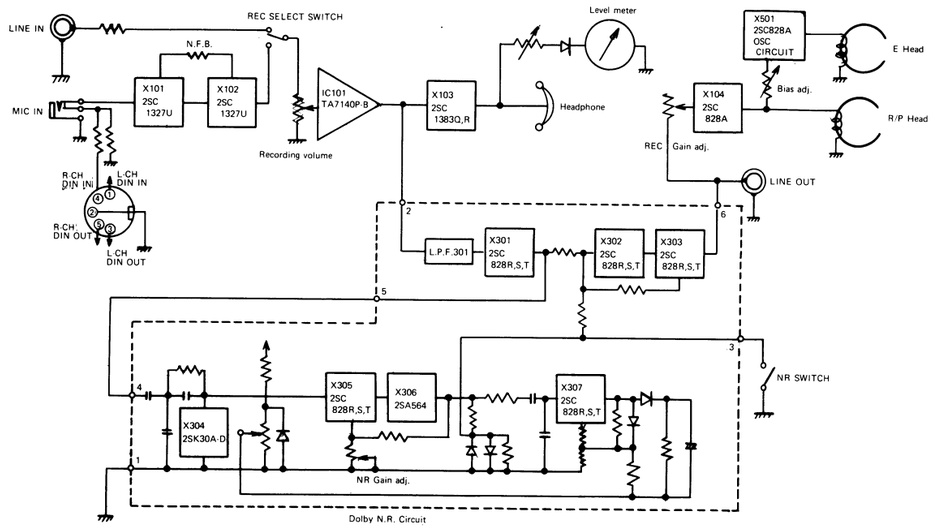


Fig. 26

Playback System

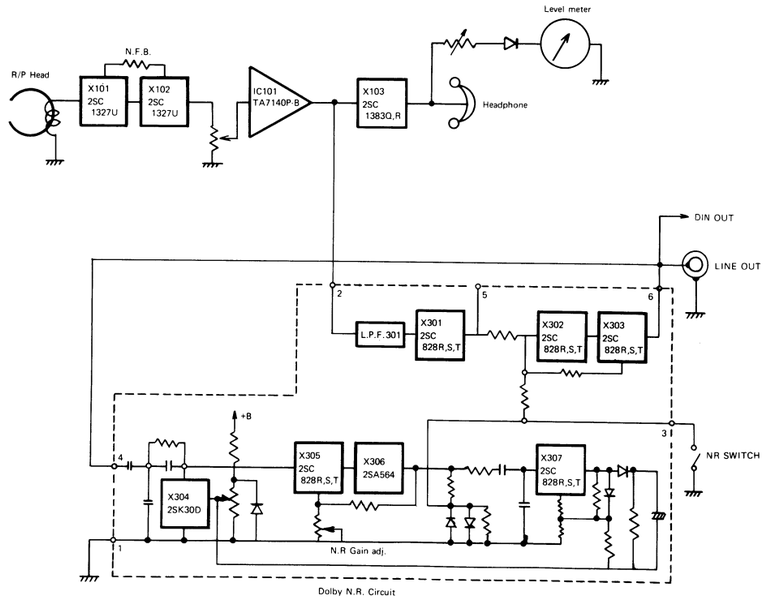


Fig. 27

Packing

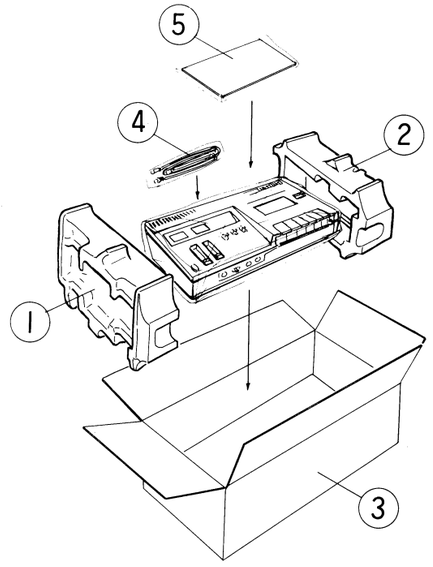


Fig. 28

Packing List

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
1~3	*T31621-0AA	Packing Case Ass'y		1set
1	*TKC300101-01	Cushion	Left	1
2	*TKC300102-01	〃	Right	1
3	*T31621-024	Case		1
	T6800-00J	Envelope	for Set	1
	AP4056A-035	〃	for Power Cord	1
			for Conection Cord	1
	AP4056A-077	〃	for Instruction Book	1

Accessories

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
4	T30046-00B	Patch Cord	CD-1740U,A	2
	CN201	Din Cord	CD-1740B,E	1
	T47796-00B	Head Cleaning Stick		2
	AP4056A-024	Envelope	for Head Cleaning Stick	1
	TLT000429-01	Caution Card		1
5	T7225EGF	Instruction Book		1